UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,016	10/31/2003	Thomas Frietsch	200309655-2	7146

22879 7590 08/06/2009

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS, CO 80528

EXAMINER	
DAILEY, THOMAS J	
ART UNIT	PAPER NUMBER
2452	

NOTIFICATION DATE	DELIVERY MODE
08/06/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
jessica.l.fusek@hp.com

Office Action Summary	Application No.	Applicant(s)	
	10/698,016	FRIETSCH, THOMAS	
	Examiner	Art Unit	
	Thomas J. Dailey	2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *32-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *32-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 32-48 are pending.

Response to Arguments

2. The 35 U.S.C. 101 rejections have been withdrawn in light of the applicant's entered amendments.

3. The applicant argues with respect to claim 32, Barnard fails to disclose determining whether a particular node is an authentic node of the network. Specifically suggesting being an authentic node of a network requires authentication.

4. The examiner disagrees. Being an *authentic* node of a network is not the equivalent to being an *authenticated* node of a network. That is, authentic simply means real, whereas authenticated means implies the node verified through an authentication process. Therefore, Barnard still reads on the claimed limitation and is elaborated on below.

5. The applicant argues with respect to claim 48 that Barnard fails to disclose several of the steps (see Remarks, page 14).

6. The examiner notes, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

   Claim 48 was rejected under 35 U.S.C. 103(a) as being unpatentable over Barnard in further view of Sistanizadeh et al. (US Pat. 5,790,548).

7. The applicant's other arguments with respect to the prior art rejection of the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

8. Claims 32, 34, 40, 43, and 46 recite, "a network ***topography***, the polled network ***typography*** including..." (e.g., claim 32, line 20). Appropriate correction of the typographical error is required. Further, it is examiner's belief the applicant intended to claim network topology, not "topography" (see applicant's specification, e.g. Background Art) and will be interpreting it as such. Appropriate correction is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 32-33, 35-36, 38, 39, 40-41, 43-44, and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnard et al (US Pub. No. 2003/0005100), hereafter "Barnard," in view of the applicant's admitted prior art, hereafter "AAPA," with the citations referring to the applicant's specification.

11. As to claim 32, Barnard discloses a method of discovering that a particular network node having an assigned address has been connected to a computer network including (a) plural nodes, one of which is the particular node, and (b) a server arrangement including a network portion and a discovery portion (Abstract), the method comprising:

responding to the establishment of the connection of the particular network node to the network by transmitting an initial request from the particular node to the network portion of the server arrangement via the network ([0074], lines 16-21, printing device on network ("particular node") sends DHCP discover request ("initial request") to internal DHCP server ("network portion of server

arrangement"), the initial access request including the assigned address of the particular node ([0074], DHCP discover request ("initial request") includes MAC address ("assigned address"));

the network portion of the server arrangement responding to the initial access request by initiating a discovery request and deriving an indication of the assigned address of the particular node ([0074], lines 30-35);

the network portion supplying the discovery request and the assigned address of the particular node to the discovery portion only after the network portion has determined that the particular node is an authentic node of the network ([0074], lines 30-35, DHCP server supplies MAC address ("assigned address" and IP address to discovery module ("discovery portion") after printing device ("particular node") has IP address (i.e. now the printer can communicate with other devices on the network and therefore is authentic));

the discovery portion responding to the discovery request applied to the discovery portion by the network portion by storing the assigned address of the particular node ([0077], lines 5-15, the IP address is provided so that SNMP may be used to communicate between network management device and printing device ("particular node)) and initiating a discovery program that performs a discovery procedure for the particular node in response to the supplying of the discovery request and the assigned address of the particular node to the discovery portion ([0077], lines 11-22, SNMP request (a function of "a discovery

procedure") is sent out which retrieves information from the printing device via its IP address);

the discovery procedure for the particular node including polling network topology, the polled network typography including other nodes to which the particular node is connected, and the configuration of the particular node ([0077], lines 12-27).

But, Barnard may not disclose the polling other nodes in the network to determine network topology. Rather, Barnard appears to poll nodes to determine topology a singular node at a time, subsequent to their discovery.

However, AAPA discloses a discovery procedure including polling nodes in a network to determine network topology, and the polled network topology including at least some of the other nodes to which a particular node is connected, and the configuration of the particular node (Page 1, [002], “the Open View Network Node Manager product are designed to discover network topology (i.e., a list of all network node in a domain, their type, and their connections), monitor the health of each network node, and report problems to the network administrator… The monitoring function of such a system is usually performed by a specialized computer program which periodically polls each network element and gathers data which is indicative of the network element's health”; page 2, [004] discloses retrieval of configuration information).

Therefore, it would have been obvious to combine the teachings of Barnard and the applicant's admitted prior art (AAPA) in order to obtain a complete real-time topological representation of all nodes of the network, rather than simply polling one node at a time as disclosed in Barnard.

12. As to claim 35, Barnard discloses a method of discovering that a particular network node having an assigned address has been connected to a computer network including (a) plural nodes, one of which is the particular node, and (b) a server arrangement including a network portion and a discovery portion (Abstract), the method comprising:

responding to the establishment of the connection of the particular network node to the network by transmitting an initial request from the particular node to the network portion of the server arrangement via the network ([0074], lines 16-21, printing device on network ("particular node") sends DHCP discover request ("initial request") to internal DHCP server ("network portion of server arrangement"), the initial access request including the assigned address of the particular node ([0074], DHCP discover request ("initial request") includes MAC address ("assigned address"));

the network portion of the server arrangement responding to the initial access request by initiating a discovery request and deriving an indication of the assigned address of the particular node ([0074], lines 30-35);

the network portion supplying the discovery request and the assigned address of the particular node to the discovery portion only after the network portion has determined that the particular node is an authentic node of the network ([0074], lines 30-35, DHCP server supplies MAC address (“assigned address" and IP address to discovery module (“discovery portion”) after printing device (“particular node”) has IP address (i.e. now the printer can communicate with other devices on the network and therefore is authentic);

the discovery portion responding to the discovery request applied to the discovery portion by the network portion by storing the assigned address of the particular node ([0077], lines 5-15, the IP address is provided so that SNMP may be used to communicate between network management device and printing device (“particular node)) and initiating a discovery program that performs a discovery procedure for the particular node in response to the supplying of the discovery request and the assigned address of the particular node to the discovery portion ([0077], lines 11-22, SNMP request (a function of "a discovery procedure") is sent out which retrieves information from the printing device via its IP address);

the discovery procedure for the particular node including determining status information about the particular node ([0077], lines 12-27).

But, Barnard may not disclose the polling other nodes in the network to determine network topology. Rather, Barnard appears to poll nodes to determine topology a singular node at a time, subsequent to their discovery.

However, AAPA discloses a discovery procedure including polling nodes in a network to determine network topology, and the polled network topology including at least some of the other nodes to which a particular node is connected, and the configuration of the particular node (Page 1, [002], "the Open View Network Node Manager product are designed to discover network topology (i.e., a list of all network node in a domain, their type, and their connections), monitor the health of each network node, and report problems to the network administrator… The monitoring function of such a system is usually performed by a specialized computer program which periodically polls each network element and gathers data which is indicative of the network element's health"; page 2, [004] discloses retrieval of configuration information).

Therefore, it would have been obvious to combine the teachings of Barnard and the applicant's admitted prior art (AAPA) in order to obtain a complete real-time topological representation of all nodes of the network

13. As to claims 38, 39, 40, 43, and 46, they are rejected by a similar rationale to that set forth in claims 32 and 35's rejections.

14. As to claim 33, Barnard discloses the discovery portion receives a sequence of discovery requests including assigned addresses of various nodes of the network which have requested access to the network, the discovery portion storing the assigned addresses of the received request from the various nodes ([0077], lines 12-27 and Fig. 7).

15. As to claims 36, 41, 44, and 47, they are rejected by a similar rationale to that set forth in claim 33's rejection.

16. Claims 34, 37, 42, and 45, are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnard in view of AAPA in further view of what was well known in the art as applied to claims 36, 41, 44, and 47, and in further view of what was well known in the art at the time of the invention.

17. As to claim 34, 37, 42, and 45, Barnard discloses the invention substantially with regard to the parent claims 36, 41, 44, and 47, and but do not explicitly disclose the sequence of assigned addresses is stored as a stack that the discovery portion processes in first-in-first-out order. Barnard's does not go into specifics as to how the addresses are stored, just that they are.

Although Barnard does not explicitly suggest the use of a first-in-first-out order (FIFO) stack, Official Notice is taken (MPEP 2144.01) that using a FIFO stack as a means to store data was a well-known practice at the time of the applicant's invention was made, which is deployed to more easily manage memory operations. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to take advantage of a known standard to modify the teachings Barnard in order to achieve such benefits.

18. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnard in view of AAPA as applied to claim 32, and in further view of Sistanizadeh et al. (US Pat. 5,790,548), hereafter “Sistanizadeh.”

19. As to claim 48, Barnard discloses the particular node includes a portable computer and a docking station ([0041]).

But, Barnard does not disclose the docking station responding to the portable computer being initially connected to the docking station by booting the portable computer and performing a logon dialog between the network portion of the server arrangement and the portable computer; the logon dialog being the initial request; the network portion of the server arrangement responding to the logon dialog from the portable computer by determining if the portable computer is an authentic node of the network; the server arrangement, when connected to the

portable computer that is an authentic node, functioning as a domain controller for the portable computer.

However, Sistanizadeh discloses the docking station responding to the portable computer being initially connected to the docking station by booting the portable computer and performing a logon dialog between a network portion of a server arrangement and a portable computer (Sistanizadeh, Fig. 7 and column 12, lines 7-14, as part of IP address assignment PC includes logon information); the logon dialog being the initial request (column 12, lines 8-14); the network portion of the server arrangement responding to the logon dialog from the portable computer by determining if the portable computer is an authentic node of the network (column 12, lines 8-14, PC sends login information so as to be authenticated); the server arrangement, when connected to the portable computer that is an authentic node, functioning as a domain controller for the portable computer (column 12, lines 21-30, server arrangement includes DNS server).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Barnard and Sistanizadeh in order to provide greater security to the discovery procedures of Barnard by the means provided for in Sistanizadeh (i.e. user and password information).

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

21. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.

23. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./
Examiner, Art Unit 2452

/Dohm Chankong/
Primary Examiner, Art Unit 2452